



(43) International Publication Date  
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number  
WO 2005/004684 A1

BEST AVAILABLE COPY

(51) International Patent Classification<sup>7</sup>: A47J 31/46,  
31/52, F16K 11/10

(21) International Application Number:  
PCT/IB2004/051198

(22) International Filing Date: 12 July 2004 (12.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03102171.0 15 July 2003 (15.07.2003) EP

(71) Applicant (for all designated States except US): KONIN-  
KLJKE PHILIPS ELECTRONICS N.V. [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): VAN DER MEER,  
Sijtze [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eind-  
hoven (NL). HUNTINK, David, J., T. [NL/NL]; c/o Prof.  
Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: SCHOUTEN, Marcus, M.; Prof. Holstlaan 6,  
NL-5656 AA Eindhoven (NL).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

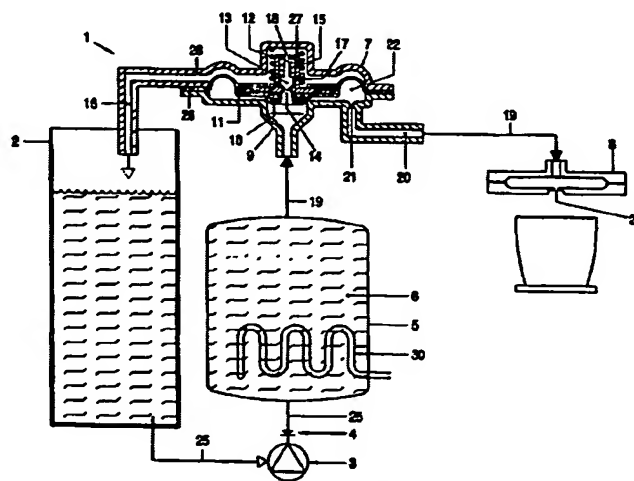
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted  
a patent (Rule 4.17(ii)) for the following designations AE,  
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,  
EG, ES, FI, FR, GB, GR, GU, HK, IL, IN, JP, KE, KG, KP,  
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT,  
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,  
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: BEVERAGE MAKER SUITABLE FOR USE AT HIGH ALTITUDES



(57) Abstract: A beverage maker has a valve structure (13; 43; 153) adapted block the return of water from a boiler (5) to its water reservoir (2) in response to a water pressure from the boiler exceeding a shut-off pressure value. The valve structure (7; 47; 107) further includes a discharge outlet (20; 120) connected for water outflow to the brewing unit (8) and is adapted to open a passage from that inlet (9; 109) to the discharge outlet (20; 120) in response to a water pressure at the inlet (9; 109) exceeding a discharge pressure value below the pumping pressure. The valve structure (7; 47; 107) is further adapted to block the return of water from the boiler (5) to the water reservoir (2) also in response to a water pressure from the boiler below a relief pressure value above atmospheric pressure and below the shut-off pressure value. The pressure in the boiler during heating towards boiling is thus kept above atmospheric pressure.

WO 2005/004684 A1